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WIDE CUT HARVESTER HAVING ROTARY CUTTER BED

Abstract [^] OF THE DISCLOSURE

5 A harvester which uses a rotary style cutter bed has
a series of rotary cutters extending across the path of
travel of the machine and rotatable about individual
upright axes. Part of the cutter bed is a flat gear case
containing a train of intermeshed spur gears that serve to
distribute power between the cutters above the gear train.
10 Each end of the gear case has a hollow, gearless extension
welded thereto which supports at least one additional
outboard cutter that receives its driving power exterior-
ally of the gear case. One embodiment uses a mechanical
drive to bring power to the upright shaft of the cutter
15 having the first spur gear so that the cutters with gears
receive all their power from the driven cutter. The
outboard cutters not having gears are driven by exterior,
over-the-top drive mechanism coupled with the shafts of the
first and last geared cutters, such drive mechanism alter-
20 natively taking the form of timing belts with timing
sheaves, chains and sprockets, gear box and universal joint
couplings or a spur gear train. As an alternative to a
mechanical drive, the cutter bar may utilize a pair of
hydraulic motors coupled with the shafts of the first and
25 last cutters having gears. All of the gears in the gear
case remain positively enmeshed with one another in the
gear train, so that the two hydraulic motors share the
total load of driving the cutter bed and such loading is
balanced between the two hydraulic motors, prolonging the
30 useful life of the gears and other drive components. The
added on, outboard cutters are driven over the top using
timing belts, timing sheaves, universal couplings or a spur
gear train.